(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 17 November 2005 (17.11.2005)

PCT

(10) International Publication Number WO 2005/109428 A1

- (51) International Patent Classification7: 20/12, 27/034, 27/32
- G11B 20/10,
- (21) International Application Number:

PCT/JP2005/008823

- (22) International Filing Date:
- 9 May 2005 (09.05.2005)
- (25) Filing Language:

English

(26) Publication Language:

English

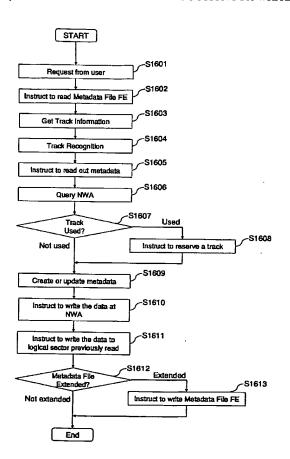
(30) Priority Data:

| I Horny Data. | | |
|---------------|-----------------------------|----|
| 60/569,536 | 10 May 2004 (10.05.2004) | US |
| 60/569,537 | 10 May 2004 (10.05.2004) | US |
| 60/577,734 | 7 June 2004 (07.06.2004) | US |
| 60/577,616 | 7 June 2004 (07.06.2004) | US |
| 60/605,491 | 30 August 2004 (30.08.2004) | US |
| 60/605,488 | 31 August 2004 (31.08.2004) | US |
| 60/668,237 | 4 April 2005 (04.04.2005) | US |
| 60/668,236 | 4 April 2005 (04.04.2005) | US |
| | | |

- (71) Applicants (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka, 5718501 (JP). Microsoft Corporation [US/US]; One Microsoft Way, Redmond, Washington, 980526399 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BUBAN, Garret, J.. GOTOH, Yoshiho. NAGAR, Rajeev, Y.. HAVEWALA, Sarosh, C., GHOTGE, Vishal, V., THIND, Ravinder, S.,
- (74) Agents: YAMAMOTO, Shusaku et al.; Fifteenth Floor, Crystal Tower, 2-27, Shiromi 1-chome, Chuo-ku, Osakashi, Osaka 5406015 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

[Continued on next page]

(54) Title: DATA RECORDING/REPRODUCTION FOR WRITE-ONCE DISCS



(57) Abstract: A file system is enabled to use a Metadata Partition instead of VAT for write-once discs, and is provided by a pseudo-overwrite method with a plurality of tracks especially for metadata and file data. On applying this invention to a drive apparatus that supports pseudo-overwrite media, the file system distinguishes data to overwrite from data to append (S1701). When the data is newly written to a logical sector, the drive apparatus writes the data to a physical sector to which the logical sector corresponds (S1703). When the data being overwritten is data stored in the logical sector, the data is written to the other unrecorded physical sector in the volume space (S1704), and remapping information is written (S1705). The remapping information specifies the original address of the physical sector, and the remapping address of the physical sector in which the data is written.

WO 2005/109428 A1

T CORRES A SULTABLE THE CORRES AND A CHAIR A SHELL CHAIR FOR THE STATE OF THE CORRESPONDED TO A SHELL CHAIR A CHAIR A SHELL CHAI

KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.